



**SEAD**

**GLOBAL EFFICIENCY MEDAL**

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**Industrial and Outdoor Lighting Awards  
Competition Official Rules**

FINAL  
16 December 2016

# **SUPER-EFFICIENT EQUIPMENT AND APPLIANCE DEPLOYMENT (SEAD™) INITIATIVE**

## **2017 INDUSTRIAL AND OUTDOOR LIGHTING AWARDS COMPETITION OFFICIAL RULES**

### **1. Background**

The Super-efficient Equipment and Appliance Deployment (“SEAD”) Initiative SEAD is an initiative of the Clean Energy Ministerial (CEM) and a task of the International Partnership for Energy Efficiency Cooperation (IPEEC). At its core, SEAD is about governments working together to save energy, turning knowledge into action to advance global market transformation for energy efficient products. SEAD’s Global Efficiency Medal competition (the “Competition”) encourages the production and sale of super-efficient equipment, appliances, and electronics by recognizing the world’s most energy efficient products. SEAD unveiled plans for the first Global Efficiency Medal competition at the second Clean Energy Ministerial in April 2011. The winners, offering the market the most the most energy efficient flat-panel televisions, were announced on 1 October 2012. From 2013 through 2015, winners announced have included top performing computer monitors, electric motors, and residential and commercial lighting products. The 2017 competition will focus on industrial and outdoor lighting products – namely high-bay and low-bay luminaires and street lights. Previous competitions followed a winner-take-all approach. However, for this competition, all entrants that meet a set of criteria will receive recognition. The awards will enhance buyers’ ability to differentiate and choose among products on the basis of their energy efficiency. The Collaborative Labeling and Appliance Standards Program (“CLASP” or “Administrator”) serves as the Administrator of the Competition.

### **2. Who Should Apply**

Manufacturers and private labelers of lighting luminaires (hereafter “Applicants”) are invited to submit applications of their eligible products (hereafter “Products”). No other entities or people are eligible for participation. The Competition is subject to all applicable laws indicated in section 14. Void where prohibited by law. Eligibility may be verified at any time. All Applicants are solely responsible for their Product entries.

### **3. Award Categories**

The Competition focuses on industrial lighting (high-bay and low-bay luminaires) and outdoor lighting (street lighting luminaires).

The Competition will recognize the most energy efficient Products in two (2) categories (individually a “Category,” collectively, the “Categories”), further divided into several classes (individually a “Class,” collectively, the “Classes”):

- 1) High-Bay and Low-Bay Luminaires, subdivided into six Classes according to initial light output and color temperature; and
- 2) Street Lighting Luminaires, subdivided into six Classes according to initial light output and color temperature.

For purposes of this Competition, an Award of Excellence will be granted to all Products in each of the Classes defined below that meet all requirements as determined by the Administrator, through its testing methods or other method of verification, and in its sole discretion. Awards will also be granted to the best performing Product in each of the Classes defined below with performance defined as luminaire efficacy as determined by the Administrator, through its testing methods or other method of verification, and in its sole discretion.

Applicants are invited to nominate their eligible Products that are offered for sale (regardless of the Product manufacturer location) in each defined Class in one or more of three (3) geographic regions consisting of: Europe<sup>1</sup>, India<sup>2</sup>, and North America<sup>3</sup> (individually a “Region,” collectively, the “Regions”). Products must satisfy all of the criteria (summarized in Section 4, with detail provided in Attachment A) relevant to a Class in order to be eligible for an Award of Excellence in a particular Class.

The best performer in each Class in each Region will be declared a “Regional Winner” for the Class.

The best performer in each Class among all of the Regions will be declared an “International Winner” for the Class. All models nominated for a Region award will be considered for the International awards, so an Applicant need only nominate Products at the Region award level.

Applicants may nominate only one Product model for each Class-and-Region combination. In addition to Awards of Excellence, a total of up to thirty-six (36) Regional and twelve (12) International Winners (individually a “Winner,” collectively, the “Winners”) will be granted.

Applicants may nominate Products for consideration in any Region, regardless of the Product manufacturer location, provided that all of the specified criteria are satisfied for each nominated Product. For example, a Product manufactured in Japan and sold globally may be nominated in any and all Regions for which it qualifies and is commercially available.

A) Industrial Lighting (High-Bay and Low-Bay Luminaires):

Applicants are invited to nominate their Products that are offered for sale (regardless of the product manufacturer location) in six award Classes of commercially available high-bay and low-bay luminaires intended for indoor ceiling installations. There are three award Classes for luminaires with initial light output of 2500 to less than 15,000 lumens and three award Classes for luminaires with initial light output of greater than or equal to 15,000 lumens. Products may have either a warm white correlated color temperature (CCT) of 2700K to less than 3500K, a mid-white CCT of 3500K to less than 5000K, or a cool white CCT of 5000K to 6500K.<sup>4</sup> All Products must meet all of the specified quality and performance requirements provided in Section 4 and Attachment A of these Competition Rules.

B) Outdoor Lighting (Street Lighting Luminaires):

Applicants are invited to nominate their Products that are offered for sale (regardless of the product manufacturer location) in six awards Classes for commercially available street lights of any shape (cobra-head, shoe-box, etc.). There are three award Classes for luminaires with initial light output of 2500 to less than 10,000 lumens and three award Classes for luminaires with initial light output of greater than or equal to 10,000 lumens. Participating products may

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<sup>1</sup> For purposes of this Competition, the European Region consists of all EU28 countries and the EFTA-countries Iceland, Liechtenstein, Norway and Switzerland

<sup>2</sup> For purposes of this Competition, limited to India

<sup>3</sup> For purposes of this Competition, limited to the United States and Canada

<sup>4</sup> All color temperature ranges also have color tolerances as indicated by the American National Standards Institute (ANSI) and specified in these Competition Rules, Table 2.

have either a warm white CCT of 2700K to less than 3500K, a mid-white CCT of 3500K to less than 5000K, or a cool white CCT of 5000K to 6500K. All Products must meet all of the specified quality and performance requirements provided in Section 4 and Attachment A of these Competition Rules.

**Table 1: Summary of the SEAD Industrial and Outdoor Lighting Award Categories**

<i>Category</i>	<i>Classes</i>	<i>Regional Awards</i>			<i>INTERNATIONAL AWARDS</i>
		<i>EUROPE</i>	<i>INDIA</i>	<i>NORTH AMERICA</i>	
<b>High-Bay and Low-Bay Luminaires</b>	2500 to <15,000 lumens 2700 to <3500K CCT	•	•	•	•
	2500 to <15,000 lumens 3500 to <5000K CCT	•	•	•	•
	2500 to <15,000 lumens 5000 to 6500K CCT	•	•	•	•
	≥15,000 lumens 2700 to <3500K CCT	•	•	•	•
	≥15,000 lumens 3500 to <5000K CCT	•	•	•	•
	≥15,000 lumens 5000 to 6500K CCT	•	•	•	•
<b>Street Lighting Luminaires</b>	2500 to <10,000 lumens 2700 to <3500K CCT	•	•	•	•
	2500 to <10,000 lumens 3500 to <5000K CCT	•	•	•	•
	2500 to <10,000 lumens 5000 to 6500K CCT	•	•	•	•
	≥10,000 lumens 2700 to <3500K CCT	•	•	•	•
	≥10,000 lumens 3500 to <5000K CCT	•	•	•	•
	≥10,000 lumens 5000 to 6500K CCT	•	•	•	•

#### **4. Energy Efficiency and Quality Evaluation**

The conditions and procedures for measuring the efficacy and the quality of the Products submitted to this Competition shall apply to the Categories identified in Table 2 below, where applicable. All Products shall be measured in their out-of-the-box state. Applicants shall provide declarations or documentation for each of these criteria, as specified in this section. Only some criteria will be tested for the Competition.

Additional information for the first five sections of criteria in Table 2 is provided in Attachment A. Additional information for the cost criteria is provided in section 6. A. (c) below.

**Table 2: Summary of Minimum Performance Criteria for Nominated Products**

Metric	High-Bay and Low-Bay Luminaires	Street Lighting Luminaires																												
<b>1. Efficacy &amp; Light Output – Subject to verification testing &amp; Supporting documentation required</b>																														
A) Minimum luminaire efficacy (lm/w)	2700K to <3500K: ≥130 lm/W 3500K to <5000K: ≥135 lm/W 5000K to 6500K: ≥140 lm/W	2700K to <3500K: ≥130 lm/W 3500K to <5000K: ≥135 lm/W 5000K to 6500K: ≥140 lm/W																												
B) Initial light output in lumens (lm)	2500 to <15,000 lm; or ≥15,000 lm	2500 to <10,000 lm; or ≥10,000 lm																												
C) Luminous intensity distribution	0-180° with 50% of flux in declared beam angle (if applicable); 20-50° with ≥30% -10% of flux	0-90° with 100% -1%; 80-90° with ≤10% +3%																												
<b>2. Color &amp; Light Quality – Subject to verification testing &amp; Supporting documentation required</b>																														
A) Color rendering (CRI and R9)	Ra ≥ 80, R9 > 0	Ra ≥ 70																												
B) Correlated color temperature (CCT)	<table border="1"> <thead> <tr> <th>Nominal CCT (K)</th> <th>Target CCT and tolerance (K)</th> </tr> </thead> <tbody> <tr> <td>2700</td> <td>2725 ±145</td> </tr> <tr> <td>3000</td> <td>3045 ±175</td> </tr> <tr> <td>3500</td> <td>3465 ±245</td> </tr> <tr> <td>4000</td> <td>3985 ±275</td> </tr> <tr> <td>4500</td> <td>4503 ±243</td> </tr> <tr> <td>5000</td> <td>5029 ±283</td> </tr> <tr> <td>5700</td> <td>5667 ±355</td> </tr> <tr> <td>6500</td> <td>6532 ±510</td> </tr> </tbody> </table>		Nominal CCT (K)	Target CCT and tolerance (K)	2700	2725 ±145	3000	3045 ±175	3500	3465 ±245	4000	3985 ±275	4500	4503 ±243	5000	5029 ±283	5700	5667 ±355	6500	6532 ±510										
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C) Chromaticity tolerance (Duv)	<table border="1"> <thead> <tr> <th>Nominal CCT (K)</th> <th>Target Duv</th> <th>Duv Tolerance (color maintenance &lt;0.007)</th> <th>Duv Tolerance (color maintenance &lt;0.004)</th> </tr> </thead> <tbody> <tr> <td>2700</td> <td>0.0000</td> <td rowspan="2">Tx: CCT of the source</td> <td rowspan="8">0.0044 in (u'v') diagram</td> </tr> <tr> <td>3000</td> <td>0.0001</td> </tr> <tr> <td>3500</td> <td>0.0005</td> <td>For Tx &lt; 2870K 0.000 ± 0.0060</td> </tr> <tr> <td>4000</td> <td>0.0010</td> <td>For Tx ≥ 2870K</td> </tr> <tr> <td>4500</td> <td>0.0015</td> <td>Duv (Tx) ± 0.0060</td> </tr> <tr> <td>5000</td> <td>0.0020</td> <td>where</td> </tr> <tr> <td>5700</td> <td>0.0025</td> <td>Duv (Tx) = 57700 x (1/Tx)<sup>2</sup> - 44.6 x (1/Tx)</td> </tr> <tr> <td>6500</td> <td>0.0031</td> <td>+ 0.00854</td> </tr> </tbody> </table>		Nominal CCT (K)	Target Duv	Duv Tolerance (color maintenance <0.007)	Duv Tolerance (color maintenance <0.004)	2700	0.0000	Tx: CCT of the source	0.0044 in (u'v') diagram	3000	0.0001	3500	0.0005	For Tx < 2870K 0.000 ± 0.0060	4000	0.0010	For Tx ≥ 2870K	4500	0.0015	Duv (Tx) ± 0.0060	5000	0.0020	where	5700	0.0025	Duv (Tx) = 57700 x (1/Tx) <sup>2</sup> - 44.6 x (1/Tx)	6500	0.0031	+ 0.00854
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D) Minimum power factor	>0.90																													

Metric	High-Bay and Low-Bay Luminaires	Street Lighting Luminaires								
E) Flicker frequency (f) and modulation (FM) <sup>5</sup>	<table border="1"> <tr> <td><b>f : flicker frequency</b></td> <td><b>FM: flicker modulation (%)</b></td> </tr> <tr> <td>f ≤ 90 Hz</td> <td>FM &lt; (0.01 x f)</td> </tr> <tr> <td>90 Hz &lt; f ≤ 1250 Hz</td> <td>FM &lt; (0.08 x f)</td> </tr> <tr> <td>f &gt; 1250 Hz</td> <td>No FM requirement</td> </tr> </table>	<b>f : flicker frequency</b>	<b>FM: flicker modulation (%)</b>	f ≤ 90 Hz	FM < (0.01 x f)	90 Hz < f ≤ 1250 Hz	FM < (0.08 x f)	f > 1250 Hz	No FM requirement	N/A
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f ≤ 90 Hz	FM < (0.01 x f)									
90 Hz < f ≤ 1250 Hz	FM < (0.08 x f)									
f > 1250 Hz	No FM requirement									
F) Harmonic distortion	Total Harmonic Distortion ≤ 20%									
G) Maximum luminance (glare), (cd/m <sup>2</sup> )	When the gamma (γ) angle > 60°, ≤ 10,000 cd/m <sup>2</sup>	Must meet any national or regional requirements								
<b>3. Color &amp; Light Quality – Supporting documentation required</b>										
A) Ambient operating temperature	N/A	Operational after thermal cycling from -30°C to 50°C.								
B) Ingress Protection	N/A	IP ≥ 65								
<b>4. Lifetime – Supporting documentation required</b>										
A) Luminous flux maintenance (time to L <sub>70</sub> )	At 6,000h, ≥ 94.8% of initial (L <sub>70</sub> ≥ 40,000h)	At 6,000h, ≥ 95.8% of initial (L <sub>70</sub> ≥ 50,000h)								
B) Early failure rate (maximum)	≤ 5% early failures at 6,000 hours									
C) Minimum rated luminaire lifetime (F <sub>50</sub> ) – based on L <sub>70</sub> lifetime	At 40,000h, < 50% have failed	At 50,000h, < 50% have failed								
D) Color maintenance (Δ u'v' at 6,000h)	< 0.004	< 0.007								
E) Endurance test	Must survive one switching cycle for every 2 hours of rated life	N/A								
F) Warranty duration	2 years, plus 1 year for every 15,000 hours or part thereof of the rated lifespan	N/A								
<b>5. Health &amp; Environment – Supporting documentation required</b>										
A) Safety requirements	<p>Must meet national or regional requirements for material and electrical appliance safety laws and requirements for labelling / marking. For example:</p> <table border="1"> <thead> <tr> <th>Region</th> <th>Example evidence of meeting safety requirements</th> </tr> </thead> <tbody> <tr> <td>Europe</td> <td>CE Marking</td> </tr> <tr> <td>India</td> <td>Evidence that products comply with BIS safety requirements</td> </tr> <tr> <td>North America</td> <td>Safety marks: ANSI/UL 1993-2012 and ANSI/UL 8750-2009</td> </tr> </tbody> </table>		Region	Example evidence of meeting safety requirements	Europe	CE Marking	India	Evidence that products comply with BIS safety requirements	North America	Safety marks: ANSI/UL 1993-2012 and ANSI/UL 8750-2009
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Europe	CE Marking									
India	Evidence that products comply with BIS safety requirements									
North America	Safety marks: ANSI/UL 1993-2012 and ANSI/UL 8750-2009									
B) Hazardous substances	RoHS compliant, or meets other national or regional requirements									

<sup>5</sup> The criteria for flicker modulation are based on IEEE 1789-2015 recommended practices guide, section 8.

Metric	High-Bay and Low-Bay Luminaires	Street Lighting Luminaires
C) Blue Light Photo-biological hazard class	For the blue light hazard: RG0 or RG1. Luminaires other than RG0 or RG1 are allowed only if the threshold distance defined by IEC TR 62778 is specified and the product is labelled with the eye safety marking according to IEC TR 62471-2. The risk group (RG) is assessed at 200 mm from the lamp using the general methodology of IEC 62471 and the particular prescriptions of IEC TR 62778.	
D) Compatibility with dimmers or controls	Luminaires may be dimmable or non-dimmable, which must be clearly indicated on the product packaging. For dimmable products, the manufacturer shall: (a) declare the conditions under which the luminaire will dim; and (b) provide a web address for a webpage that lists compatible dimmer makes and models	
<b>6. Cost Criteria</b>		
See Section 6. A. (c) below		

## 5. Competition Period.

The Competition begins at 00:00:01 Eastern Daylight Time (“EDT”) on 12 September 2016 and ends at 23:59:59 EDT on 12 February 2017 (“Competition Period”). All applications must be received in accordance with these Official Rules during the Competition Period to be eligible to win an award. All subsequent applications will be deemed void and not eligible to enter or win. Administrator’s computer is the official time keeping device for this Competition.

## 6. How to Enter.

- A. Declaration of Performance. Applicants must enter the Competition by submitting a completed Declaration of Performance (see Attachment B incorporated in these Official Rules for reference) for each nominated model of their Product in a Region via the online system monitored by the Administrator. The information submitted on the Declaration of Performance shall include:
- (a) a declaration of the Product’s luminous efficacy such that a representative sample of the population of the Product available for sale would exhibit performance that meets or exceeds the reported values. For reporting purposes for the Competition, all values on the Declaration of Performance must be reported to the maximum number of significant digits;

and

  - (b) a declaration that the Product is available for sale in each Region for which it is nominated;

and

  - (c) a declaration of the manufacturer’s average selling price at time of nomination of the Lighting Product model available for purchase in the specified Region at the time of nomination (average selling price in current US Dollars, converted (if necessary) using exchange rates on the nomination day). The lm/\$ value of the Products will be a consideration during the selection process of Awards of Excellence, Regional Winners and International Winners.
- B. Participation in the Global Lighting Challenge. Any manufacturer that submits products to the Competition, regardless of the outcome, will automatically be given the opportunity to become a supporter of the Clean Energy Ministerial’s Global Lighting Challenge. For more information, see: <http://www.globallightingchallenge.org/>

- C. **Other Application Information.** All other information on the application form must be completed or the application will be deemed null and void. All information provided must be truthful, accurate, and complete. Applicant agrees to cooperate with the Administrator to supply other information regarding the Product requested by Administrator within the time period specified or the application will be deemed null and void. The Administrator shall have the right to place an application in another Region, size or Category in its discretion. By submitting an application, all Applicants agree to be bound by these Official Rules. Participation in the Competition is at the sole and absolute discretion of Administrator. All applications, including Declarations of Performance, shall become the sole property of Administrator and will not be returned to Applicants. Applicants agree and acknowledge that the applications do not contain any confidential or trade secret information and may be disclosed in whole or in part and Applicants acknowledge and agree that the Administrator may publish the application forms to the public. Although the Administrator retains the right to disclose information upon its discretion, the Administrator has no current plans to disclose information about nominated products that do not win an award.

## 7. Selection of Award Winners.

- A. **Method for Evaluating Performance.** An Award of Excellence will be granted to all Products in each of the Classes that meet all requirements as determined by the Administrator, through its testing methods or other method of verification, and in its sole discretion. The Administrator will use the performance values set forth in the Declarations of Performance to identify potential winning Product models in each Region for each Category. Among all recipients of Awards of Excellence, Regional Winners and International Winners will be determined by evaluating Product performance through the primary metric of luminous efficacy, reported in lumens/watt). The conditions and procedures for measuring this performance are described in the Test Method IES LM-79-08: Electrical and Photometric Measurements of Solid-State Lighting Products (the "Test Method"). The relevant test procedures within the Test Method form the basis for testing in all of the participating Regions. The Administrator will use the luminous efficacy values set forth in the Declarations of Performance to identify potential Regional Winners for each Category.

In the event that two Products claim equivalent luminous efficacies, the Regional Winner will be determined by comparative testing of the competing nominated Products. In circumstances where the independent testing facility is able to measure significant differences between the Products on values that affect luminous efficacy, the more efficacious Product will be declared the Regional Winner. In circumstances where the independent testing is inconclusive, the Products will be declared as joint Regional Winners.

Regardless of whether a Product model has the highest efficacy in the Class for a Region, no Regional Winner award will be made if a Product model fails to meet the other minimum criteria summarized in Section 4 and described in detail in Attachment A when measured per the Test Method or another relevant test method described in Attachment A.

Unless otherwise specified, several criteria in Attachment A require Applicants to provide evidence **from an accredited third-party test facility**<sup>6</sup> to substantiate that the criteria have

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<sup>6</sup> Laboratory accreditation is a means of determining the technical competence of laboratories to perform specific types of testing, measurement and calibration. It also provides formal recognition to competent laboratories, thus providing a ready means for customers to identify and select reliable testing, measurement and calibration services able to meet their needs. To maintain this recognition, laboratories are re-evaluated



been met. For any test that requires 6,000 hours of testing data, Applicants that do not have the full 6,000 hours of data at the time of nomination must provide to the Administrator, upon request, evidence that an accredited third-party test facility is actively testing the product along with at least 3,000 hours of test data by 10 December 2016, 4,000 hours of test data by 20 January 2016, and 6,000 hours of test data by 15 April 2017.

- B. Submitting Product for Verification Testing. All potential Regional Winners will be subject to verification testing. Potential winners of the Award of Excellence may also be subject to verification testing, or may be determined via evidence from an accredited third-party test facility.

For all potential Regional Winners, the Administrator will submit a notice to the Applicant using the contact information supplied by the Applicant requesting that the Applicant provide sample Product within fifteen (15) business days of being notified by the Administrator for verification testing using one of the following procedures:

- (a) Applicant shall provide to the Administrator a list of 50 recent sales to distributors, including serial unique identification number for the shipped units, so that two (2) sample Products for verification can be obtained from one of those distributors as selected by the Administrator or its agents. Potential Winner shall arrange and pay all costs for transportation of test samples from a distributor to the test facility of the Administrator's choosing, using standard shipping companies and ensuring the shipment arrives at the test facility, and agree to provide acceptable crediting arrangements to the distributor

or

- (b) If Applicant does not have 50 units of a Product model at a distributor, it shall provide the Administrator details of the location of and serial numbers for at least 50 units of the subject Product model, from different Product batches in existing warehouse stock, from which the Administrator shall select two (2) samples for verification testing. Potential Winner shall then arrange and pay all costs for transportation of test samples of the selected Product model from warehouse stock to the test facility of Administrator's choosing, using standard shipping companies and ensuring the shipment arrives at the test facility; or

In the event that neither of the foregoing sample acquisition options is feasible, the potential Winner shall submit an alternative proposal to the Administrator for obtaining Product samples, which the Administrator may accept or reject in its sole discretion.

Verification Testing Procedures. Selection of accredited testing laboratories shall be in the sole discretion of the Administrator. Verification testing costs will be paid for by participating SEAD governments. For each Region, verification testing will be performed at the nominal system voltage of that Region.

For verification testing, two (2) luminaire samples of Product will be selected randomly and used for verification testing. A second set of samples may be requested by the Administrator and used for verification testing upon occurrence of one of the following: (1) If the initial set of test samples is damaged, a second set of samples shall be used for verification testing; (2) If the test results for the first set of samples fails to confirm the information submitted in

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periodically by the accreditation body to ensure their continued compliance with requirements, and to check that their standard of operation is being maintained. The laboratory may also be required to participate in relevant proficiency testing programs between reassessments, as a further demonstration of technical competence. Source: [http://www.cala.ca/ilac\\_why\\_become\\_accred\\_lab.pdf](http://www.cala.ca/ilac_why_become_accred_lab.pdf)

the Declaration of Performance, a second set of samples will be requested by the Administrator and tested, provided the efficacy demonstrated by the first set of test samples is at least 95% (rounding allowed) of the Applicant's claimed efficacy after taking into account any laboratory uncertainty. If the initial set of samples is damaged and a second set of samples fails to pass verification testing, a third set of samples will be requested by the Administrator as described herein.

If verification testing confirms the information submitted in the Declaration of Performance, in the sole discretion of Administrator, then the Regional and International Winners shall be finalized and announced.

If verification testing does not confirm the information submitted in the Declaration of Performance, and the actual tested luminous efficacy of the Product model is less than the stated luminous efficacy for the potential winning Product model in the Category, the tested Product model shall be rejected or re-tested in the sole discretion of the Administrator, the Applicant shall be so notified, and the foregoing testing process shall be repeated for the provisional runner-up product. Applicants may request the verification test results for their respective Product models only.

In the event two or more Product models in a Category claim the same luminous efficacy as confirmed by verification testing, Administrator shall have the right to grant more than one Regional or International Award in a Category in its sole discretion.

The Product model with the best luminous efficacy in a Category across all Regions shall also be granted the International Award for that Category for each Class.

- C. Disqualification. Administrator may in its sole discretion disqualify any Applicant that fails to comply with the foregoing requirements and deadlines.

## **8. Awards.**

The following awards (the "Awards") will be granted in this Competition:

- A. Awards of Excellence will be granted to all Products in each Class that meet all requirements as outlined in Section 4, Table 2.
- B. Up to thirty-six (36) Regional Winners will be selected: One Winner in each Class will be selected in each Region, as outlined in Section 3, Table 1 (the "Regional Winners").
- C. Up to twelve (12) International Winners will be selected: One International Winner will be selected in each Class from the Regional Winners.

Collectively, upon verification, the "Winners." Awards may not be given if, in the Administrator's sole discretion, an insufficient number of applications were received. In its sole discretion, the Administrator may award more than one Winner in a Category. The Administrator anticipates that all Winners will be announced by May/June 2017. All Winners will be strongly encouraged to attend an awards ceremony at a date and location to be announced by the Administrator. However, no travel or accommodations will be awarded as part of any Award.

## **9. Award Restrictions.**

Applicants and Winners acknowledge that the “SEAD” mark and all other intellectual property regarding the Competition (collectively, the “SEAD IP”) are owned by the Administrator. Applicants and Winners agree not to challenge or seek to register any intellectual property associated with the Competition. Winners will be granted a limited personal license to the SEAD IP to advertise and promote the award granted to the specific model of their Product for two years from the date of award. All use of the SEAD IP must be in compliance with the guidelines published by Administrator from time to time on the [superefficient.org](http://superefficient.org) website and attached to these Official Rules and incorporated by reference. Winners agree not to use the SEAD IP or make any mention of winning an award that is not consistent with these guidelines, and to immediately cease all inconsistent use upon notice by Administrator. Winners may only promote that an award pertains to the specific model winning an award, and may not state or imply that the award applies to other Product models of a Winner. Winners may not use the SEAD IP to state or imply that the Administrator or any other entity or person associated with the Competition endorse or are affiliated with the Winner or its Products.

## **10. Publicity.**

Except where and as may be prohibited by law, participation in the Competition constitutes express permission of an Applicant for the Administrator (and those acting pursuant to the authority of the Administrator) to use each Applicant’s name and application for the Competition in advertising, trade, and publicity purposes for the SEAD program and the Competition in all forms of media now known or hereafter discovered or devised, worldwide, in perpetuity, without further notice, review or approval, or compensation. This permission is perpetual and irrevocable.

## **11. General Conditions.**

By participating in the Competition, each Applicant fully and unconditionally agrees to and accepts these Official Rules and the decisions of the Administrator, which are final and binding in all respects. By participating in the Competition, each Applicant waives any right to claim ambiguity in these Official Rules. An Applicant is not a Winner until it has fully complied with these Official Rules. The Administrator reserves the right, in its sole and absolute discretion, to cancel, terminate, modify, extend, or suspend the Competition (in whole or in part) should non-authorized intervention, fraud, or other causes corrupt or affect the administration, security, fairness, or proper conduct of the Competition. In such case, the Administrator may grant awards from all eligible applications received for the Competition prior to and/or after (if appropriate) the action taken by Administrator or via some other means determined by Administrator in its sole and absolute discretion to be fair, appropriate and consistent with these Official Rules. Administrator reserves the right to disqualify any Applicant it determines, in its sole and absolute discretion, is or is attempting or intending to: (a) tamper with any aspect of the operation of the Competition, (b) defraud the Competition, (c) undermine the legitimate operation of the Competition by cheating, deception, or other unfair playing practices, (d) annoy, abuse, threaten, or harass any other participants, the Administrator, or representatives of SEAD, or (e) act in violation of these Official Rules. In such event, the Administrator reserves the right (in addition to disqualification of such Applicant) to seek damages from any such Applicant to the fullest extent permitted by law. The Administrator’s failure to enforce any provision of these Official Rules shall not constitute a waiver of that provision. Any entity that enters the Competition through means not permitted by these Official Rules is subject to disqualification. The Administrator is not required to respond to questions about the Competition.

## **12. General Release and Waiver of Claims.**

By entering this Competition, each Applicant hereby releases the Administrator, SEAD, and all of their respective parents, subsidiaries, affiliates, advertising agencies, and all of their respective directors, officers, governors, employees, shareholders, and agents (collectively, the "Releasees") from: (i) any and all liability, loss, harm, damage, cost, expense, or claims, including third party claims based on publicity and/or privacy rights, defamation, and intellectual property associated with the Applicant or Winner's participation in this Competition, any award associated with this Competition, and/or use or misuse of any award in connection with this Competition, including, but not limited to, all reasonable counsel fees and court costs incurred; (ii) anything related to the Competition, or execution of this Competition (or participation therein), including pre-emption, cancellation, or rescheduling; and (iii) anything that may occur in connection with acceptance and/or use of the award or while participating in the Competition, even if caused or contributed to by the negligence of Releasees. Each Applicant also agrees to release, discharge, indemnify, and hold harmless Administrator and all other Releasees from any claims, losses, and damages arising out of, or relating to: Applicant's participation in this Competition or any Competition-related activities and the acceptance and use, misuse, or possession of any Award awarded hereunder (including, without limitation, any misrepresentation made by the entrant in connection with the Competition; any disclosure of information by Administrator allowed under these rules; Applicant's use or misuse of the SEAD IP; any non-compliance by the Applicant with these Official Rules; the Products, including, without limitation, the development, sale, use, distribution, manufacture, malfunction, design, or product liability of the Products; claims brought by persons or entities other than the parties to these Official Rules arising from or related to the Applicant's involvement with the Competition; acceptance, possession, misuse or use of any Award or participation in any Competition-related activity or participation in this Promotion; any malfunction, error or other problem arising in connection with the collection, processing, or retention of entry information; or any typographical or other error in the printing, offering or announcement of any Award or winner). The foregoing includes, without limitation, any claim for personal injury, property loss or damage, or death.

## **13. Limitations of Liability.**

Neither Administrator's nor any other Releasee is responsible for lost, late, incomplete, stolen, misdirected, illegible, erroneous or incomplete applications. Neither Administrator nor any other Releasee is responsible for any incorrect or inaccurate information, whether caused by Applicant, tampering, or by any of the equipment or programming associated with or utilized in the Competition, and neither Administrator nor any Releasee assumes responsibility for any error, omission, defect, theft, destruction, or unauthorized access to the materials related to the Competition, or for any damage to any computer related to or resulting from participating in the or entity Competition. No responsibility is assumed by the Administrator for lost, late, mutilated, incomplete, illegible, stolen, misdirected, erroneous or delayed entries or e-mail; or for any computer, telephone, cable, satellite, network, electronic or on-line/Internet hardware or software malfunctions, failures, connections, or availability, or garbled or jumbled transmissions, or service provider/Internet/website use, accessibility or availability, or traffic congestion, or unauthorized human intervention, other errors of any kind, including without limitation, testing results, whether human, mechanical, electronic or network, or the incorrect or inaccurate capture of entry or other information or the failure to capture, or loss of, any such information. Any use of robotic, macro, automatic, programmed or like entry methods will void all such entries by such methods. No responsibility is assumed by the Administrator for any incorrect or inaccurate information, whether caused by Applicants, website users, testing organizations, tampering, hacking, Product testing or by any of the equipment or programming associated with or utilized in the Competition; and none of the Releasees assume any responsibility for any error, omission, interruption, deletion, defect, delay in operation of the Competition. IN NO EVENT WILL THE ADMINISTRATOR OR ANY RELEASEE BE RESPONSIBLE OR LIABLE FOR ANY INJURIES,

CLAIMS, ACTIONS, DAMAGES, LOSSES, OR LIABILITY OF ANY KIND, INCLUDING DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, OR PUNITIVE DAMAGES RESULTING FROM OR ARISING FROM PARTICIPATION IN, OR THE PRODUCTION, COMPETITION, OR ADMINISTRATION OF, THE COMPETITION, OR ACCEPTANCE, POSSESSION, USE, MISUSE, OR NONUSE OF AN AWARD.

WITHOUT LIMITING THE FOREGOING, ALL AWARDS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. SOME JURISDICTIONS MAY NOT ALLOW THE LIMITATIONS OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OR EXCLUSION OF IMPLIED WARRANTIES, SO SOME OF THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. CHECK YOUR LOCAL LAWS FOR ANY RESTRICTIONS OR LIMITATIONS REGARDING THESE LIMITATIONS OR EXCLUSIONS. ANY ATTEMPT BY AN APPLICANT OR ANY OTHER INDIVIDUAL TO DELIBERATELY UNDERMINE THE LEGITIMATE OPERATION OF THE COMPETITION IS A VIOLATION OF CRIMINAL AND CIVIL LAWS, AND SHOULD ANY SUCH ATTEMPT BE MADE, THE ADMINISTRATOR RESERVES THE RIGHT TO SEEK DAMAGES FROM ANY SUCH PERSON OR ENTITY TO THE FULLEST EXTENT PERMITTED BY LAW.

#### **14. Choice of Law.**

All United States federal, state, and local laws and regulations apply to the Competition, regardless of Region. Applicants agree that: (1) any and all disputes, claims, and causes of action arising out of or connected with this Competition, or any award, or the determination of the Winners, shall be resolved individually, without resort to any form of class action; (2) any and all claims, judgments, and awards shall be limited to actual out-of-pocket costs incurred, including costs associated with entering this Competition but in no event attorneys' fees. All Applicants acknowledge and agree that the Competition shall be administered solely in the District of Columbia, United States of America, and that all issues and questions concerning the construction, validity, interpretation, and enforceability of these Official Rules, or the rights and obligations of Applicant and/or Administrator in connection with the Competition, shall be governed by, and construed solely and exclusively in accordance with, the laws of the District of Columbia, United States of America, without regard to conflicts of law/choice of law doctrine of any other jurisdiction, and all proceedings shall exclusively take place in the United States District Court for the District of Columbia. Applicant agrees to the exclusive jurisdiction of such court and waives any right to change of venue or any like right.

#### **15. Copy of Official Rules.**

Official Rules may be obtained by visiting Administrator's website at [www.superefficient.org](http://www.superefficient.org) during the Competition Period.

#### **16. Copy of Winner's List.**

For a list of Winners visit the website of the Administrator located at [www.superefficient.org](http://www.superefficient.org)

Administrator: Collaborative Labeling & Appliance Standards Program (CLASP), 1401 K Street NW, Washington, DC 20005.

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# SUPER-EFFICIENT EQUIPMENT AND APPLIANCE DEPLOYMENT (SEAD™) INITIATIVE

## GUIDELINES FOR USE OF INTELLECTUAL PROPERTY

### 1. Use of SEAD Marks and References to the Competition.

1.1 Subject to the Official Rules for the Super-efficient Equipment and Appliance Deployment (“SEAD”) Initiative Awards Competition (the “Competition”), and using the same capitalized terms as used in the Official Rules unless indicated herein to the contrary, pursuant to these policies and guidelines (“Guidelines”), each Winner shall have a non-exclusive, non-transferrable, restricted, revocable limited right to use and refer to the phrase “SEAD Global Efficiency Medal Winner” (the “Phrase”), solely in a factual manner or context, and solely in connection with materials or activities specifically related to the particular Winning Product that (i) have been previously reviewed and approved by SEAD in the first instance; and (ii) must comply with the Guidelines at all times. Once the use of the Phrase and SEAD name in materials or activities has been approved by SEAD, subsequent materials or activities that do not alter or modify the use of the Phrase or SEAD name need not be submitted for approval. Except upon the prior written consent of SEAD in each instance, the Phrase and SEAD name must only be used in association with the Winning Product as submitted in the competition where the model and release number are identical. For the avoidance of doubt, the Phrase and SEAD name may not be used in any way or for any purposes whatsoever in connection or association with other non-Winning products or models that may be considered upgrades or derivatives of the Winning Product.

#### 1.2

1.2.1 Any use or reference of the Phrase or to the SEAD name beyond use in a factual manner or context (for example, packaging, advertising, marketing materials and/or the Competition entry's website for the Winning Product), shall require the Winner to:

1.2.1.1 obtain written permission from SEAD prior to its use or distribution, including where such approval is contingent on strict adherence to the Guidelines.

1.2.1.2 maintain the quality controls and abide by the minimum standards of quality control provided in the Guidelines.

1.2.1.3 execute such further documents, assignments, agreements, and instruments and take any further acts as SEAD may deem necessary and reasonably request in order to effectuate these terms.

1.2.2 SEAD will retain all rights, including intellectual property rights, associated with the Phrase (and any variants) and the SEAD name and reserves the right to monitor and/or police the use of the Phrase or any other reference to SEAD names, marks or trademarks, including without limitation, on any Winning Product or other materials associated with the Winning Product.

1.2.3 It is understood the Guidelines may be updated and/or modified periodically in SEAD's sole discretion, and you agree to accept and be bound by any updates and/or modifications. You further agree to abide by your use or reference of the Phrase or any other SEAD owned names or marks in a manner expressly consistent with the minimum standard of quality controls specified and as updated and/or modified in the Guidelines.

## **2. Intellectual Property and Publicity Rights.**

- 2.1 As between the Applicants and SEAD, SEAD is the owner of the service mark/trademark SEAD. Applicant acknowledges SEAD's exclusive right, title and interest in and to the SEAD name and will not, at any time, do or cause to be done any act or thing contesting or impairing such rights, titles and interests. Applicant further acknowledge that the sole right granted to a Winner under these Guidelines and the Official Rules is to use the Phrase solely and specifically in connection with those materials or activities associated with the Winning Product and that are previously approved by SEAD as a result of winning the Competition, and for no other purpose whatsoever. Any and all goodwill that arises from your use of the Phrase will inure to the sole benefit of SEAD.
- 2.2 Applicant agrees not to challenge, oppose, petition to cancel or otherwise attack the validity of the SEAD name or trademark and/or SEAD's ownership thereof. You acknowledge that you have no right, title or interest in the Phrase or the SEAD name, and that nothing in these Guidelines or the Official Rules shall be construed as an assignment of any right, title or interest in the Phrase or the SEAD name, except the limited right to use and refer to the Phrase as provided in this agreement and under these Guidelines.
- 2.3 Applicant acknowledges and agrees that SEAD has complete authority to control use of the SEAD name or marks. Applicant shall use the Phrase in strict compliance with the provisions of the Official and in conformity with the Guidelines, as amended from time to time. Should Applicant fail to comply with the Guidelines as outlined in the Appendix, or fail to maintain proper quality controls and/or act, behave and/or do anything to negatively impact the goodwill and/or the SEAD name, SEAD shall have the right in its sole discretion to terminate the rights granted under these Official Rules or Guidelines at any time.
- 2.4 Applicant acknowledges and agrees that SEAD shall have the sole right and discretion to determine whether any action should be taken to terminate unauthorized use of the Phrase or the SEAD name, or settle any proceeding brought by SEAD to terminate such unauthorized use. All proceeds from any enforcement action shall belong exclusively to SEAD.
- 2.5 By participating in this Competition, Applicant agrees and hereby grant SEAD permission to use statements, quotes, testimonials, photographs, designs, models, and/or any other material(s) provided by you as part of the Competition entry, as well as your name, photograph, likeness, and, if applicable, the name of eligible Applicant's company and affiliation, for advertising, and/or promotional purposes without any additional compensation to eligible Applicant unless prohibited by law. Applicant retains ownership of the Products' intellectual property rights in the Competition entry, subject to SEAD's rights to reprint, display, reproduce, perform, and exhibit the Competition entry for advertising and/or promotional purposes. By participating in this Competition, Applicant agrees that any materials we generate in reviewing and accessing the Products is the sole property of SEAD.

# SUPER-EFFICIENT EQUIPMENT AND APPLIANCE DEPLOYMENT (SEAD™) INITIATIVE

## ATTACHMENT A: ADDITIONAL INFORMATION ABOUT CRITERIA FOR NOMINATED PRODUCTS FOR 2017 INDUSTRIAL AND OUTDOOR LIGHTING AWARDS COMPETITION

### 1. Efficacy and Light Output Requirements – Subject to verification testing & Supporting documentation required from an accredited third-party facility

- A) Luminaire efficacy (lm/W)<sup>7</sup> – The total light output (measured in lumens) of the luminaire divided by the power consumed (measured in watts). The higher the efficacy value, the more energy-efficient the lighting product. Manufacturers shall submit luminaire efficacy claims for nominated Products, and these claims may be verified through randomly sampled testing.

<b>Test Method:</b>	CIE S 025: Test Method for LED Lamps, LED Luminaires and LED Modules
<b>Method and Analysis:</b>	The sample of luminaires shall have their efficacy averaged together to determine the efficacy of the representative sample.

- B) Light output (lm) - The total light output (measured in lumens) is total light emitted by the lamp or luminaire.

<b>Test Method:</b>	CIE S 025: Test Method for LED Lamps, LED Luminaires and LED Modules
<b>Method and Analysis:</b>	The sample of luminaires shall have their light output averaged together to determine the light output of the representative sample.  Variation of 5% from required initial light output in lumens (lm) in Table 2 will be allowed during testing.

- C) Luminous intensity distribution - This criterion describes the measured distribution of light of a GLS lamp.

<b>Test Method:</b>	CIE S 025: Test Method for LED Lamps, LED Luminaires and LED Modules
<b>Method and Analysis:</b>	The sample of luminaires shall have their measurements averaged together to determine the luminous intensity distribution of the representative sample.

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<sup>7</sup> “Fixture luminous efficacy” refers to efficacy for the high-bay and low-bay luminaires, and “Downward fixture luminous efficacy” refers to efficacy for outdoor luminaires.



**2. Color and Light Quality Requirements – Subject to verification testing & Supporting documentation required from an accredited third-party facility**

- A) Color rendering – Color rendering is a measure of how similar object colors appear under one light source as compared to the object colors under a reference light source (usually an incandescent light or daylight).

<b>Test Method:</b>	CIE S 025: Test Method for LED Lamps, LED Luminaires and LED Modules (CIE 13.3-1995)
<b>Method and Analysis:</b>	R9 shall be assessed in addition to CRI. The sample shall have their CRI averaged together and their R9 averaged together to determine the CRI and R9 of the representative sample.

- B) Correlated color temperature (CCT) – The temperature of the lighting product in relation to the Planckian (black body) locus, measured in Kelvins (K).

<b>Test Method:</b>	CIE S 025: Test Method for LED Lamps, LED Luminaires and LED Modules (CIE 15:2004: Colorimetry)
<b>Method and Analysis:</b>	The sample shall have their CCT averaged together to determine the CCT of the representative sample.

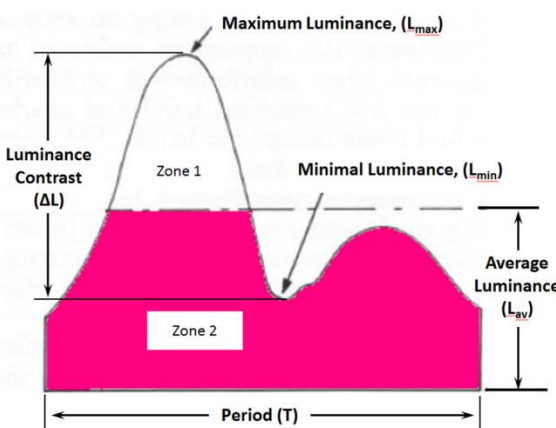
- C) Chromaticity tolerance (Duv) – Specifies the allowable deviation in light’s color. Technically, it is the distance of a light’s chromaticity from the Planckian (black body) locus.

<b>Test Method:</b>	CIE S 025: Test Method for LED Lamps, LED Luminaires and LED Modules
<b>Method and Analysis:</b>	The sample of luminaires shall have their measurements averaged together to determine the chromaticity tolerance of the representative sample.

- D) Minimum power factor – Power factor is the ratio of the real power flowing to the load over the apparent power of the circuit.

<b>Test Method:</b>	IEC 61000-3-2 Ed. 3.2 Consol. with Amendments 1&2: Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current less than or equal to 16 A per phase). 2009-04.
<b>Method and Analysis:</b>	Each sample luminaires shall meet the minimum required power factor.

- E) Flicker frequency (f) and modulation (FM) – Measures the perceived photometric “flicker” of a light source.

<b>Test Method:</b>	IEEE 1789-2015: Recommended Practices for Modulating Current in High-Brightness LEDs for Mitigating Health Risks to Viewers.
<b>Method and Analysis:</b>	<p>The test method shall follow Section 8 from the recent standard, IEEE 1789-2015: Recommended Practices for Modulating Current in High-Brightness LEDs for Mitigating Health Risks to Viewers.</p>  $FM(\%) = 100 \left( \frac{L_{max} - L_{min}}{L_{max} + L_{min}} \right) = 100 \left( \frac{ \Delta L }{L_{max} + L_{min}} \right)$

- F) Harmonic distortion – Harmonic distortion measures how the lighting product might affect the quality and safety of the electrical utility’s grid. The total harmonic distortion of the current is the RMS-sum of all the harmonic currents divided by the current at the fundamental frequency (50 Hz or 60 Hz).

<b>Test Method:</b>	IEC 61000-4-7
<b>Method and Analysis:</b>	Each sample of luminaires shall meet the minimum requirement of the harmonic distortion.

- G) Maximum luminance (glare), (cd/m<sup>2</sup>) – Glare luminance defines the total luminance level where the visual contrast between task and light source are so high that the task cannot be distinguished. Alternatively, it is when the amount of light becomes physically painful to experience or makes it difficult to work in indoor environments.

<b>Method and Analysis:</b>	The sample of luminaires shall have their measurements averaged together to determine the glare luminance of the representative sample.
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### 3. Color and Light Quality Requirements – Supporting documentation required from an accredited third-party facility

- A) Ambient operating temperature – The ambient operating temperature represents the range of temperatures within which the manufacturer has determined it is safe to use the luminaire.

<b>Test Method:</b>	The luminaire shall be operational after being exposed to thermal cycling including the range of -30°C to 50°C, within which the manufacturer has determined it is safe to use the luminaire.
<b>Method and Analysis:</b>	Applicants shall use either IEC 62722-2-1 (LED Luminaire Performance) or IEC 62717 (LED Module Performance) to substantiate that this criterion has been met.

- B) Ingress protection – Ingress protection measures the degree of protection by enclosures for electrical equipment against solid objects and water.

<b>Test Method:</b>	IEC 60529, IEC 60598-2-3 and IEC 60598-1
<b>Method and Analysis:</b>	Applicants shall provide evidence to substantiate that this criterion has been met.

### 4. Lifetime Requirements – Supporting documentation required

- A) Minimum lumen maintenance (time to L<sub>70</sub>) – The percentage of the luminaire’s light output after a period of time compared to its initial light output.

<b>Test Method:</b>	IES LM-80 and TM-21
<b>Method and Analysis:</b>	Applicants shall provide evidence (including for example an LM-80 test report on the luminaire) <b>from an accredited third-party test facility</b> to substantiate that the LM-80 criterion has been met. For the TM-21 calculation, applicants may <b>choose either to use a third-party facility or prepare the evidence themselves (i.e., first-party)</b> , for example, using the US ENERGY STAR’s TM-21 calculator. Applicants that use the <a href="#">Energy Star TM-21 calculator</a> themselves to prepare their evidence must include the Excel spreadsheet tool with their application, populated with their product’s data, and provide complete transparency on inputs and outputs in this spreadsheet tool.

- B) Early failure rate – The percentage of luminaires in a sample of at least 20 units that fail at a specified point in time (6000h).

<b>Test Method:</b>	IES LM-80-08
<b>Method and Analysis:</b>	Applicants shall provide evidence <b>from an accredited third-party test facility</b> to substantiate that this criterion has been met.

- C) Minimum rated luminaire lifetime ( $F_{50}$ ) – Lifetime (for this competition  $L_{70}$ ) is typically defined as the amount of time that it takes for 50% of a statistically significant sample to fail.

<b>Method and Analysis:</b>	Applicants shall provide evidence <b>from an accredited third-party test facility</b> to substantiate that this criterion has been met.
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- D) Color maintenance ( $\Delta u',v'$  at 6,000h) – Specifies the allowable shift of the light color of a lighting product over time.

<b>Test Method:</b>	IES LM-80 (CIE 15:2004: Colorimetry)
<b>Method and Analysis:</b>	Applicants shall provide evidence <b>from an accredited third-party test facility</b> to substantiate that this criterion has been met using test data derived from the test method shown.

- E) Endurance test – Requires that a lighting product is rapidly switched on and off to simulate how a product will be used over its lifetime. This criterion requires that a test is carried out to stress a lighting product over a short period of time to determine the failure rates of a product.

<b>Test Method:</b>	IEC 62612 Edition 1.0 section 11.3.3
<b>Method and Analysis:</b>	Applicants shall provide evidence <b>from an accredited third-party test facility</b> to substantiate that this criterion has been met.

- F) Warranty duration – Specifies the duration of the warranty in years from the date of manufacture of a lighting product.

<b>Method and Analysis:</b>	Applicants shall provide evidence to substantiate that this criterion has been met including, for example, a photograph of the warranty statement on the packaging and a copy of the warranty.
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## 5. Health and Environment Requirements – Supporting documentation required

- A) Safety requirement – Specifies that a product meets electrical safety requirements and marking requirements (where applicable). All products must meet all safety regulations in an economy. Evidence that the product meets safety requirements in market must be supplied.

<b>Method and Analysis:</b>	Applicants shall provide evidence to substantiate that this criterion has been met. Competition assessors will review the evidence provided to determine whether products contain the necessary safety requirements for the relevant markets.
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- B) Hazardous substances – Requires products meet requirements that limit the use of certain hazardous materials. For example, for products sold in the European Union, the EU’s Regulation of Hazardous Substances (RoHS) Directive<sup>8</sup> prevents the use of certain hazardous materials in new electrical and electronic equipment placed on the European market after 1 July 2006. For products sold in North America, the ENERGY STAR Lamp Specification version 1.0 section 13<sup>9</sup> details Lamp Toxics Reduction. Products sold in other countries may use other, similar requirements.

<b>Method and Analysis:</b>	Applicants shall provide evidence to substantiate that this criterion has been met.
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- C) Blue Light Photo-biological hazard class – This hazard class has been defined in IEC 62471 and this criterion specifies the allowable amount of radiation contributing to “blue light hazard” that a lighting product shall emit.

<b>Test Method:</b>	CIE S 009 / IEC 62471
<b>Method and Analysis:</b>	Applicants shall provide evidence to substantiate that this criterion has been met.

- D) Compatibility with dimmers or controls – Evaluates whether a luminaire will operate well with a lighting controls system.

<b>Method and Analysis:</b>	Luminaires may be dimmable or non-dimmable, which must be clearly indicated on the product packaging. For dimmable products, the manufacturer shall: (a) declare the conditions under which the luminaire will dim; and (b) provide a web address for a webpage that lists compatible dimmer makes and models.
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<sup>8</sup> The EU’s RoHS Directive can be found online here:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:174:0088:0110:en:pdf>

<sup>9</sup> The ENERGY STAR Lamp Specification version 1.0 can be found online here:

[https://www.energystar.gov/ia/partners/product\\_specs/program\\_reqs/ENERGY\\_STAR\\_Lamps\\_V1\\_Final\\_Specification.pdf?372f-c767](https://www.energystar.gov/ia/partners/product_specs/program_reqs/ENERGY_STAR_Lamps_V1_Final_Specification.pdf?372f-c767)

## ATTACHMENT B: DECLARATION OF PERFORMANCE 2017 LIGHTING AWARD COMPETITION

Applicant Details				
<i>Contact Name</i>				
<i>Contact Title</i>				
<i>Company / Organization</i>				
<i>Phone number (w / Country Code)</i>				
<i>Email</i>				
Manufacturer Information				
<i>Manufacturer Name</i>				
<i>Manufacturer's Postal Address: Street Address, City, State / Province/ Region, Postal / Zip Code, Country</i>				
<i>Manufacturer's website</i>				
Nominated Product Information				
<i>Product Brand Name</i>				
<i>Product Model Number</i>				
<i>Award Category for which Product is Nominated</i>	<input type="checkbox"/> High-Bay and Low-Bay Luminaires <input type="checkbox"/> Street Lighting Luminaires			
<i>Award Class for which Product is Nominated</i>	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%; border: none; vertical-align: top;"> <b>High-Bay and Low-Bay Luminaires</b>  <input type="checkbox"/> 2500 to &lt;15,000 lumens 2700 to &lt;3500K CCT  <input type="checkbox"/> 2500 to &lt;15,000 lumens 3500 to &lt;5000K CCT  <input type="checkbox"/> 2500 to &lt;15,000 lumens 5000 to 6500K CCT  <input type="checkbox"/> ≥15,000 lumens 2700 to &lt;3500K CCT  <input type="checkbox"/> ≥15,000 lumens 3500 to &lt;5000K CCT  <input type="checkbox"/> ≥15,000 lumens 5000 to 6500K CCT               </td> <td style="width: 33%; border: none; vertical-align: top;"> <b>Street Lighting Luminaires</b>  <input type="checkbox"/> 2500 to &lt;10,000 lumens 2700 to &lt;3500K CCT  <input type="checkbox"/> 2500 to &lt;10,000 lumens 3500 to &lt;5000K CCT  <input type="checkbox"/> 2500 to &lt;10,000 lumens 5000 to 6500K CCT  <input type="checkbox"/> ≥10,000 lumens 2700 to &lt;3500K CCT  <input type="checkbox"/> ≥10,000 lumens 3500 to &lt;5000K CCT  <input type="checkbox"/> ≥10,000 lumens 5000 to 6500K CCT               </td> <td style="width: 33%; border: none;"></td> </tr> </table>	<b>High-Bay and Low-Bay Luminaires</b> <input type="checkbox"/> 2500 to <15,000 lumens 2700 to <3500K CCT <input type="checkbox"/> 2500 to <15,000 lumens 3500 to <5000K CCT <input type="checkbox"/> 2500 to <15,000 lumens 5000 to 6500K CCT <input type="checkbox"/> ≥15,000 lumens 2700 to <3500K CCT <input type="checkbox"/> ≥15,000 lumens 3500 to <5000K CCT <input type="checkbox"/> ≥15,000 lumens 5000 to 6500K CCT	<b>Street Lighting Luminaires</b> <input type="checkbox"/> 2500 to <10,000 lumens 2700 to <3500K CCT <input type="checkbox"/> 2500 to <10,000 lumens 3500 to <5000K CCT <input type="checkbox"/> 2500 to <10,000 lumens 5000 to 6500K CCT <input type="checkbox"/> ≥10,000 lumens 2700 to <3500K CCT <input type="checkbox"/> ≥10,000 lumens 3500 to <5000K CCT <input type="checkbox"/> ≥10,000 lumens 5000 to 6500K CCT	
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<i>For which markets is this product nominated? (select all that apply)</i>	<input type="checkbox"/> Europe <input type="checkbox"/> India <input type="checkbox"/> North America			
<i>Product Website (if applicable)</i>				

Declared Product Characteristics	
Product Characteristic	Declaration
<i>Luminaire efficacy (lm/w)</i>	
<i>Initial Light output (lm)</i>	
<i>Luminous intensity distribution</i>	
<i>Color rendering (CRI and R9)</i>	
<i>Correlated color temperature (CCT)</i>	
<i>Chromaticity tolerance (Duv)</i>	
<i>Power factor</i>	
<i>Flicker frequency (f) and modulation (FM) – (required for high-bay and low-bay luminaires)</i>	
<i>Harmonic distortion</i>	
<i>Maximum luminance (glare), (cd/m<sup>2</sup>)</i>	
<i>Average Selling Price at time of nomination</i>	

Submit measurement data and evidence of these characteristics, as described in the Official Rules:	
Product Characteristic	Comment and/or indicate submitted “Supporting Documentation” file name
<i>Ambient operating temperature – (required for street lighting luminaires)</i>	
<i>Ingress Protection – (required for street lighting luminaires)</i>	
<i>Luminous flux maintenance (time to L70)</i>	
<i>Early failure rate</i>	
<i>Rated luminaire lifetime (F50) – based on L70 lifetime</i>	
<i>Color maintenance (<math>\Delta u'v'</math> at 6,000h)</i>	
<i>Endurance – (required for high-bay and low-bay luminaires)</i>	
<i>Warranty duration – (required for high-bay and low-bay luminaires)</i>	
<i>Safety requirement (for each nominated market)</i>	
<i>Compliance with hazardous substances policies (for each nominated market)</i>	
<i>Blue Light Photo-biological hazard class</i>	
<i>Compatibility with dimmer or controls</i>	

Submit **product image, packaging image**, and other relevant **supporting documentation**